

The background of the entire page is composed of numerous 3D rectangular blocks. The top half of the image features blocks in shades of orange and pink, while the bottom half features blocks in shades of purple and pink. The blocks are arranged in a staggered, isometric pattern, creating a sense of depth and texture.

Replicator

V 1.0.0 User Guide

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Getting Started

To get started, you will need to import the Replicator package from the asset store.

When Replicator is successfully imported, you will see the Replicator menu options appear in Tools > Replicator. Select this Replicator Window to launch the **Replicator Window**.

Replicator Window



The **Replicator Window** is used live-preview what your replicated objects will look like. It is also used to finalize those replications.

It contains a variety of options to affect how the objects will be arranged and transformed.

Replicating Objects

In order to replicate objects, we need to first populate the list of **Objects to Replicate**. You can select one or more Prefabs from your Project window, or you can select GameObjects from your scene. Next, select the **Amount of Replications** you would like to create. Once you have this defined, you can click the “**Preview**” button close to the bottom of the window to see your newly replicated objects. A “**Replicator Parent [PREVIEW]**” GameObject is automatically created in your Hierarchy. This GameObject contains all of your replicated objects as children. You can modify the position, rotation and scale of the **Replicator Parent [PREVIEW]** to determine the origin of your replications.

Objects to Replicate

The source objects that will be replicated.

Amount of Replications

The amount of replicated objects that will be created in total.

Randomize Order

When set to false, the order in which objects are replicated will be in the same order as the Objects to Replicate list. When set to true, the order will be randomly shuffled, based on the Random Seed value.

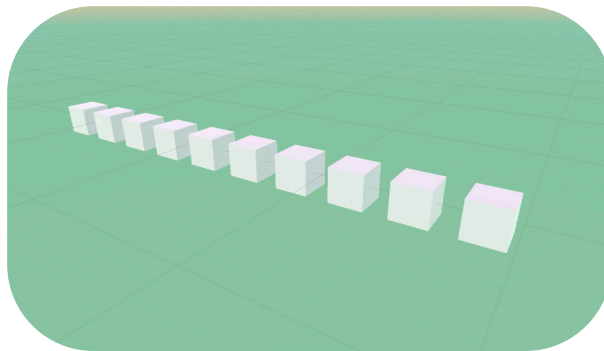
Look At

The look at function will rotate all of your replicated objects so that their Z direction is facing towards the Look At object. If Look At is null, this operation will be skipped.

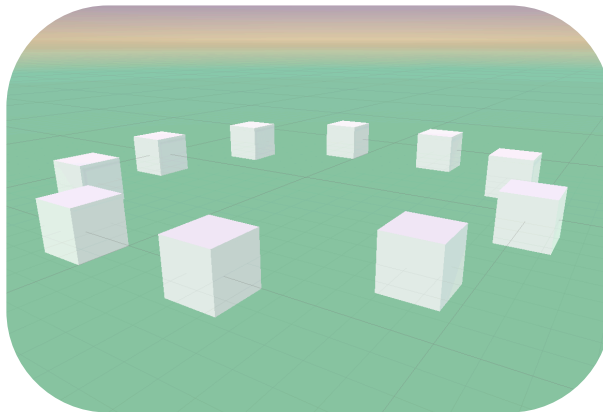
Replicator Shapes

Replicator offers a selection of Replicator Shapes that Replicated objects can be arranged in. Each Replicator Shape has different parameters to tweak that only appear when you have the relevant Replicator Shape selected. The default is Line. You can cycle through the different options and observe how they arrange your objects in different configurations.

Line - Evenly distributes all of the replicated objects in a line between two defined points. The **Line Start** and **Line End** parameters are used to define the length and orientation of the line. These points can be edited by changing their values in the Replicator Window. In the scene view, these points can also be moved visually via the provided position gizmos.

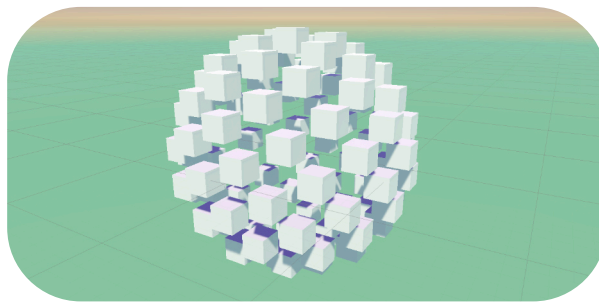


Circle - Distributes the replicated objects in a circle, with the center point being the Replicator Parent. The **Circle Radius** parameter changes how far away from the centre point the replicated objects will be.

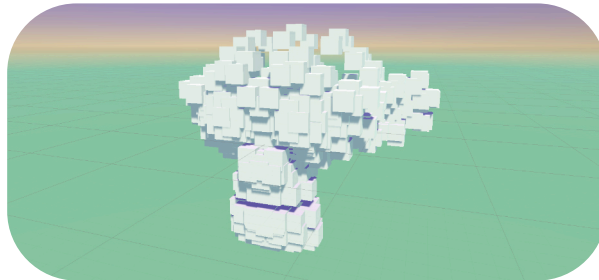


Replicator Shapes

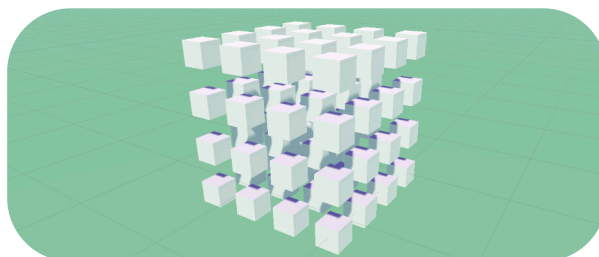
Sphere - Distributes the replicated objects in a Fibonacci-distributed sphere, with the center point being the **Replicator Parent**. The **Sphere Radius** parameter changes how far away from the centre point the replicated objects will be. This option can be used in the scene view using the provided gizmo. The **Sphere Vortex** option will make the distribute of the objects into a more of a spiral or helix. The **Sphere Squish** option changes the aspect ratio of the sphere.



Object - Given a **Shape Object** with a Mesh, this option will distribute replicated objects on each vertex of the mesh. Note that the **Amount of Replications** is limited to the amount of vertices in the **Shape Object**. You can modify the scale of the shape with the **Shape Scale** parameter.



Grid - Arranges the objects in a 3D grid. This Replicator Shape ignores the Amount of Replications. Instead the amount of objects created will be dependant on the size of the grid, controlled with **Grid Size**. You can change the how far away the grid layers are on each axis with the **Grid Spacing** parameter.



Object Modifications

Object Modifications are per-object operations that change how each object looks.

Offset

Object Rotation Offset and **Object Scale Offset** can be used to uniformly tweak the rotation and scale of each object. Position is not an option here, because that would be identical to moving the Replicator Parent.

Random

Position Random, **Rotation Random**, and **Scale Random** can be used to randomize these values for each object. The randomness is reproducible, and based on the **Random Seed** value.

Deform

Deforms move and distort the vertices of the replicated objects. At this time, each deformation is identical per-object. Twist will twist the object's meshes around their center point. Noise will apply Perlin noise to the object's vertices.

Random Seed

Sets the random seed that is used to decide all of the aforementioned random values, such as **Random Object Modifications**, and **Randomize Order**. The result of the random operations will be identical every time when the same random seed is used.

Previewing and Replicating

To see a preview of what your replicated objects will look like, click the preview button. The preview will be automatically updated live while you change any values in the Replicator Window. However, when you change the amount of replicated objects, you will need to click the Preview button to refresh that change.

Preview

Clicking this button will create preview instances based on the given options.

Clear Preview

Removes all preview objects from the scene.

Reset Options

Resets the Replicator Window to its default state. All options will be set to their original values.

Show Gizmos

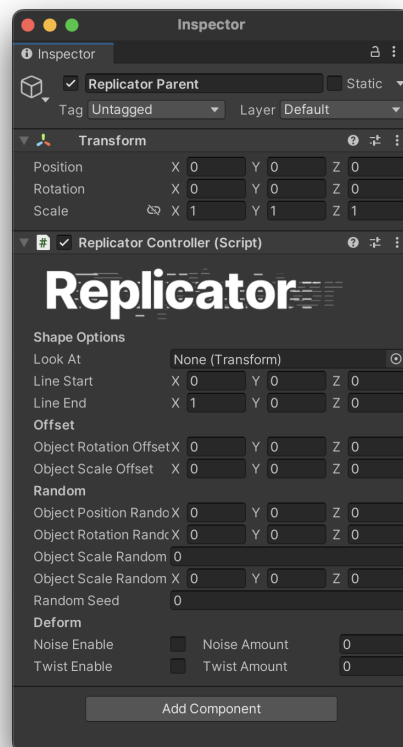
When set to true, the shape gizmos in the scene view will be shown. These are used to visually manipulate the shape of some Shape Options.

Replicate!

Finalizes the replication of the objects. When this button is pressed, a new **Replicator Parent** is created that contains all of the replicated objects, and a **Replicator Controller** is attached to the parent. At this point, the **Replicator Shape**, and the **Objects to Replicate** options are finalized, and can not be tweaked after this point.

Replicator Controllers

A **Replicator Controller component** instance is created on each **Replicator Parent**. This component can be used to tweak many of the values that the Replicator Editor Window can, even after replication. These values can also be animated using Unity's default animation tools.



You can have as many **Replicator Parents** in your scene as the performance of your computer will allow, and their values can be manipulated without other instances being affected.

Thank You

Thank you for checking out Replicator! I hope it helps you create cool things in Unity.

If you have some feedback or need help with Replicator, feel free to reach out to me at mitchtheriault@gmail.com. I would love to hear about how it's being used as well.

-Mitch